IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Hajime Kimura	Art Unit	: 2629
Serial No.	: 10/720,847	Examiner	: Michael Pervan
Filed	: November 25, 2003	Conf. No.	: 3959
Title	: CURRENT DRIVING CIRCUIT AND DISPLAY DEVICE USING THE CURRENT DRIVING CIRCUIT		

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
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BRIEF ON APPEAL

(1) Real Party in Interest

The real party in interest is Semiconductor Energy Laboratory Co., Ltd.

(2) Related Appeals and Interferences

There are no related appeals or interferences.

(3) Status of Claims

Claims 1, 7, 18, 28, 59, 64, 66, 71-74, 76-82, and 84-93 are pending, with claims 1, 18, 76, and 82 being independent. Claims 2-6, 8-17, 19-27, 29-58, 60-63, 65, 67-70, 75, and 83 were cancelled previously. The rejection of claims 1, 7, 18, 28, 59, 64, 66, 71-74, 76-82, and 84-93 were appealed in a Notice of Appeal filed on April 16, 2010.

(4) Status of Amendments

Subsequent to the final rejection of December 16, 2009, claim 76 was amended to correct a typographical error. The advisory action of April 5, 2010 indicated that the amendment would be entered. No other claims were amended subsequent to the final rejection of December 16, 2009. Thus, all amendments have been entered. The claims are copied in the Appendix of Claims.

(5) Summary of Claimed Subject Matter

In the discussion below, reference numerals and references to particular portions of the specification are included for illustrative purposes only and are not meant to limit the scope of the claims.

Independent claim 1 is directed toward a semiconductor device (see, e.g., page 44, lines 12-15). The semiconductor device includes a driven circuit (see, e.g., page 10, lines 24-25; FIGS. 1A-1C, element 150) including a first transistor (see, e.g., page 10, lines 26-29, FIGS. 1A-1C, element T_{r1}), a signal line electrically connected to the first transistor through a node (see, e.g., page 10, lines 28-29; FIGS. 1A-1C, element 400), a precharge circuit (see, e.g., page 11, lines 3-4; FIG. 1A-1C, element 500) electrically connected to the signal line and including a second transistor (see, e.g., page 11, lines 15-19; page 15, lines 30-32), and a current source circuit electrically connected to the first transistor and the second transistor (see, e.g., page 10, lines 24-25; FIGS. 1A-1C, element 300). The gate electrode of the first transistor is connected to a drain electrode of the first transistor through a first switch (see, e.g., page 10, lines 24-29), a gate electrode of the second transistor is electrically connected to a drain electrode of the second transistor (see, e.g., FIGS. 1A-1C), a gate width of the second transistor is larger than a gate width of the first transistor (see, e.g., page 7, lines 20-23; page 17, lines 3-4), and the precharge circuit is configured to perform a precharge of the driven circuit prior to supplying a signal current to the driven circuit (see, e.g., page 13, lines 21-23).

Independent claim 18 is directed toward a semiconductor device (see, e.g., page 44, lines 12-15). The semiconductor device includes a driven circuit (see, e.g., page 10, lines 24-25; FIGS. 1A-1C, element 150) including a first transistor (see, e.g., page 10, lines 26-29, FIGS. 1A-1C, element T_{r1}), a precharge circuit (see, e.g., page 11, lines 3-4; FIGS. 1A-1C, element 500) including a second transistor (see, e.g., page 11, lines 15-19; page 15, lines 30-32), a first switch for controlling an electrical connection between the driven circuit and the precharge circuit (see, e.g., page 11, lines 3-5), and a second switch for controlling an electrical connection between the driven circuit and a current source circuit (see, e.g., page 11, lines 3-5). A gate electrode of the first transistor is connected to a drain electrode of the first transistor through a third switch (see, e.g., page 10, lines 24-29), a gate electrode of the second transistor is electrically connected to a drain electrode of the second transistor (see, e.g., FIGS. 1A-1C), and a gate width of the second

transistor is larger than a gate width of the first transistor (see, e.g., page 7, lines 20-23; page 17, lines 3-4).

Independent claim 76 is directed towards a semiconductor device (see, e.g., page 44, lines 12-15). The semiconductor device includes a driven circuit (see, e.g., page 10, lines 24-25; FIGS. 1A-1C, element 150) including a first transistor (see, e.g., page 10, lines 26-29, FIGS. 1A-1C, element T_{r1}), a signal line electrically connected to the first transistor through a node (see, e.g., page 10, lines 28-29; FIGS. 1A-1C, element 400), a precharge circuit (see, e.g., page 11, lines 3-4; FIGS. 1A-1C, element 500) electrically connected to the signal line and including a second transistor (see, e.g., page 11, lines 15-19; page 15, lines 30-32), and a current source circuit electrically connected to the first transistor and the second transistor (see, e.g., page 10, lines 24-25; FIGS. 1A-1C, element 300). A gate electrode of the first transistor is connected to a drain electrode of the first transistor through a first switch (see, e.g., page 10, lines 24-29), a gate electrode of the second transistor is electrically connected to a drain electrode of the second transistor (see, e.g., FIGS. 1A-1C), a gate length of the second transistor is smaller than a gate length of the first transistor (see, e.g., page 7, lines 20-23; page 17, lines 3-4), and the precharge circuit is configured to perform a precharge of the driven circuit prior to supplying a signal current to the driven circuit (see, e.g., page 13, lines 21-23).

Independent claim 82 is directed towards a semiconductor device (see, e.g., page 44, lines 12-15). The semiconductor device includes a driven circuit (see, e.g., page 10, lines 24-25; FIGS. 1A-1C, element 150) including a first transistor (see, e.g., page 10, lines 26-29, FIGS. 1A-1C, element T_{r1}), a precharge circuit (see, e.g., page 11, lines 3-4; FIGS. 1A-1C, element 500) including a second transistor (see, e.g., page 11, lines 15-19; page 15, lines 30-32), a first switch for controlling an electrical connection between the driven circuit and the precharge circuit (see, e.g., page 11, lines 3-5), and a second switch for controlling an electrical connection between the driven circuit and a current source circuit (see, e.g., page 11, lines 3-5). A gate electrode of the first transistor is connected to a drain electrode of the first transistor through a third switch (see, e.g., page 10, lines 24-29), a gate electrode of the second transistor is electrically connected to a drain electrode of the second transistor (see, e.g., FIGS. 1A-1C), and a gate length of the second transistor is smaller than a gate length of the first transistor (see, e.g., page 7, lines 20-23; page 17, lines 3-4).

(6) Grounds of Rejection to be Reviewed on Appeal

Claims 1, 7, 18, 28, 59, 64, 66, 71-82, and 84-87 have been rejected as being unpatentable over U.S. Patent No. 6,373,454 (Knapp) in view of U.S. Patent No. 6,369,786 (Suzuki) and U.S. Patent Application Publication No. 2003/0231152 (Shin). Claims 90-93, each of which depends from one of independent claims 1, 18, 76, and 82, have been rejected as being unpatentable over Knapp, Suzuki, Shin and U.S. Patent Application Publication No. 2002/0008687 (Tazuke).

(7) Argument

A. <u>None of Knapp, Suzuki, Shin, or Any Proper Combination of the Three Renders Claim 1 Obvious</u>.

The Office has rejected claim 1 as being obvious over Knapp in view of Suzuki and Shin. Appellant requests reversal of this rejection because none of Knapp, Suzuki, Shin, or any proper combination of the three, describes or suggests that a gate width of a second transistor connected in the manner recited in claim 1 is larger than a gate width of a first transistor connected in the manner recited in claim 1, and because, even assuming for sake of argument that Knapp and Suzuki may be combined, it would not have been obvious to further modify Knapp and Suzuki in view of Shin in the manner proposed by the Office.

Knapp discloses an active matrix display device. <u>See</u> Knapp at abstract. In Knapp, a switch 33 connects a display element 20 to a drive transistor 30. <u>See</u> Knapp at col. 6, lines 21-25 and FIG. 2. When the switch 33 is closed, the transistor 30 draws current through the display element 20 so as to produce the required amount of light from the display element 20. <u>See</u> Knapp at col. 6, lines 50-53. An input line 35 connects a switch 37 to a node 36 (<u>see</u> Knapp at col. 6, lines 39-43), and an input signal I_{in} corresponding to the current required for the display element 20 is driven through the transistor 30 via the input line 35 (<u>see</u> Knapp at col. 6, lines 63-75 and FIG. 2).

Suzuki discloses a matrix driving apparatus that includes scanning electrodes and signal electrodes, and a precharge circuit connected to the signal electrodes. <u>See</u> Suzuki at col. 3, lines

52-64. In Suzuki, a precharge circuit 3A includes diodes D_1 to D_x, each of which is connected to a corresponding one of signal electrodes SiE_1 to SiE_x. See Suzuki at col. 5, lines 50-52 and FIG. 7. Shin discloses two transistors, M1 and M2, that form a current mirror. See Shin at ¶ 0014, ¶ 0016, and FIG. 2.

The Office appears to equate Knapp's transistor 30 with the recited first transistor and Suzuki's diode D_x included in the precharge circuit 3A with the recited second transistor, but the Office acknowledges that neither Knapp nor Suzuki disclose that a gate width of the second transistor is larger than a gate width of the first transistor. For this feature, the Office relies on Shin, stating that

> it would have been obvious ... to modify Knapp and Suzuki with the teachings of Shin, gate width of the second transistor being larger than the gate width of the first transistor, because it allows for greater current to flow from the precharge circuit, which allows for a faster precharge.

See final Office Action of Dec. 16, 2009 at page 5. Appellant respectfully disagrees.

First, although Shin discloses that the transistors M1 and M2 have different channel widths, Shin does not disclose which of these transistors has a larger gate width. Accordingly, if one of ordinary skill in the art were to try to modify Knapp and Suzuki in view of Shin, Shin does not teach which one of the transistors in a combined device that includes Knapp's transistor 30 and Suzuki's diode D_x would have a larger gate width. As a result, Shin would not have led to modifying Knapp and Suzuki in a manner that would have resulted in the subject matter of claim 1.

Second, Shin connects the transistors M1 and M2 as a current mirror (see Shin at ¶ 0014), and the relative channel widths of the transistors M1 and M2 are set such that the current flowing to the transistor M2 is higher than that flowing to the transistor M1 (see Shin at ¶ 0016). However, even if Knapp's transistor 30 (which the Office equates with the recited first transistor) and Suzuki's diode D_x (which the Office equates with the recited second transistor) could somehow be combined in the configuration suggested by the Office, the device obtained by combining these elements would not function as a current mirror and, accordingly, there would be no reason to make the gate or channel width of Suzuki's diode D_x greater than that of Knapp's transistor 30 based on the teachings of Shin (which are directed to forming a current mirror).

Third, the Office's rationale for combining Knapp and Suzuki with Shin does not provide a sufficient reason for combining these references. The Office equates Suzuki's diode D_x with the recited second transistor and reasons that it would have been obvious to combine Knapp and Suzuki with Shin because modifying Suzuki's diode D_x to have a larger gate width would allow "for a greater current to flow from the precharge circuit, which allows for a faster precharge." However, Suzuki's diode D_x is connected to a constant current source. See Suzuki at FIG. 7. Thus, even if a gate width of a transistor that acts as the diode D_x could be increased, the amount of current that flows through the transistor would not change because the current is supplied by a constant current source. As a result, greater current would not flow through the diode D_x as a result of increasing the gate width, and, therefore, a desire for greater current flow would not lead to an increase in the gate width.

In response to this argument, the Office asserts that

> [e]ven though a constant current is being applied, the size of the gate width of the transistor determined if all or only a part of the current is able to flow through the transistor similar to how the diameter of a pipe changes how much water flows in the pipe. As a result, the increasing gate width side would allow more of the constant current to flow which allows the desired precharge voltage to be reached more efficiently.

See final Office Action of Dec. 16, 2009 at page 2. Appellant respectfully disagrees and believes that the Office's example relates to what would occur in a circuit including a constant voltage source (such as a battery), not in a circuit such as Suzuki's that includes a constant current source. The current from a constant current source is not influenced by a change in a load coupled to the constant current source. In contrast, a voltage supply typically behaves in a manner similar to the example provided by the Office, and the current through a resistance coupled to the voltage supply changes if the resistance changes. Accordingly, because the constant current source coupled to D_x provides a constant current to D_x regardless of the gate width, there would have been no reason to increase the gate width of Suzuki's diode D_x.

Lastly, in the Response to Argument section on page 2 of the final Office Action of December 16, 2009, the Office asserts that "Shin shows that two transistors can have different gate widths and that the difference in the sizes between the two transistors correlates to the amount of current flow," and, in the Advisory Action of April 5, 2010, the Office argues that

"...in this case, the motivation can be found in the knowledge generally available to one of ordinary skill in the art that a larger channel (gate) width increases the flow of current through the transistor." As discussed above, because Suzuki's diode D_x is coupled to a constant current source, even if Shin somehow could be interpreted to show that two transistors can have different gate widths, the increased gate width would not result in more current flowing through the diode D_x because the diode D_x is coupled to a constant current source.

For at least these reasons, Knapp, Suzuki, and Shin, alone or in combination, fail to describe or suggest a driven circuit including a first transistor, a signal line electrically connected to the first transistor through a node, a precharge circuit electrically connected to the signal line and including a second transistor, and a current source electrically connected to the first transistor and the second transistor, where a gate width of the second transistor is larger than a gate width of the first transistor, as recited in independent claim 1. Moreover, it would not have been obvious to modify Knapp and Suzuki with Shin.

Accordingly, appellant requests reversal of the rejection of claim 1 and its dependent claims.

B. Independent Claims 18, 76, and 82 and Their Dependent Claims Are Allowable Over Knapp, Suzuki, Shin, or Any Proper Combination of These Three References.

The Office has rejected independent claims 18, 76, and 82 as being obvious over Knapp in view of Suzuki in further view of Shin. Appellant requests reversal of this rejection for the reasons discussed below.

Among other features, independent claim 76 recites a driven circuit including a first transistor, a signal line electrically connected to the first transistor through a node, a precharge circuit electrically connected to the signal line and including a second transistor, and a current source electrically connected to the first transistor and the second transistor, where a gate length of the second transistor is smaller than a gate length of the first transistor. Thus, the rejection of claim 76 and its dependent claims should be reversed for reasons similar to those discussed with respect to claim 1.

Among other features, independent claim 18 recites a driven circuit including a first transistor, and a precharge circuit comprising a second transistor, where a gate width of the second transistor is larger than a gate width of the first transistor. Similarly, independent claim 82 recites that a gate length of the second transistor is smaller than a gate length of the first transistor. Thus, the rejection of claims 18 and 82, and their dependent claims, should be reversed for reasons similar to those discussed above with respect to independent claims 1 and 76.

Additionally, the dependent claims are allowable in their own right. For example, among other features, claims 88 and 89, which respectively depend from claims 18 and 82, recite "a second terminal of the first switch is electrically connected to the second switch." In rejecting these dependent claims, the Office asserts that "(Knapp: Fig. 2 and Suzuki: Fig. 7, both the precharge circuit (3A) and the current source circuit (C_{S1-x}) are electrically connected to both terminals of the first switch via switch 37 and transistor 30)." See final Office Action of Dec. 16, 2009 at page 10. First, it is unclear how the Office intends to combine the structure shown in Figure 2 of Knapp with that shown in Figure 7 of Suzuki to arrive at the features of claims 18 and 82. Second, in its rejection of claims 88 and 89, the Office appears to allege that Knapp's switch 37 is used to connect a terminal of a first switch. However, in rejecting the independent claims, the Office equated the switch 37 with the recited first switch. It is unclear how Knapp's switch 37 may be equated with both the recited first switch and an element used to connect to one of two terminals of the first switch.

For at least these additional reasons, appellant requests reconsideration and withdrawal of the rejection of dependent claims 88 and 89.

C. None of Knapp, Suzuki, Shin, Tazuke, or Any Proper Combination of These Four References Renders Dependent Claims 90-93 Obvious.

The Office has rejected claims 90-93, each of which depends from one of independent claims 1, 18, 76, and 82, as being unpatentable over Knapp, Suzuki, Shin, and Tazuke. Appellant requests reversal of this rejection at least because Tazuke, which is cited as disclosing "a switch (504) configured to control an electrical connection between two lines," does not

remedy the failure of Knapp, Suzuki and Shin to describe or suggest the subject matter of independent claims 1, 18, 76, and 82, from which claims 90-93 respectively depend. Moreover, Tazuke does not describe or suggest the subject matter of dependent claims 90-93, each of which recite, among other features, a fourth switch configured to control an electrical connection between a current source circuit and a precharge circuit.

Tazuke discloses an apparatus for driving data lines of a liquid crystal display (LCD) panel(see Tazuke at abstract) output pads 501 are connected to data lines DL of the LCD panel (see Tazuke at ¶ 0038). Switches 503 formed by transfer gates are between operational amplifiers 502 and the output pads 501, and switches 504 are formed by transfer gates and are provided between the output pads 501. See Tazuke at ¶ 0038 and FIG. 4. The Office relies on Tazuke's switch 504 as somehow showing the recited fourth switch. See final Office Action of Dec. 16, 2009 at page 11. However, at most the switches 504 are configured to control an electrical connection between the output pads 501, not an electrical connection between a current source circuit and a precharge circuit.

As such, like Knapp, Suzuki and Shin, Tazuke also does not describe or suggest a fourth switch configured to control an electrical connection between a current source circuit and a precharge circuit, as recited in each of dependent claims 90-93.

Moreover, it would not have been obvious to modify Tazuke to include the features of claims 90-93. The Office asserts that "incorporating the electrical connection of two of Tazuke into the invention of Knapp and Suzuki, one skilled in the art at the time of the invention to have achieved the claimed invention in that the precharge and current source lines would have been connected together in order to achieve line neutralization, which allows for more effective precharge." See final Office Action of Dec. 16, 2009 at page 11. In making an obviousness rejection, the Office must explain why the differences between the prior art and the claims would have been obvious to one of ordinary skill in the art. See MPEP § 2141(III). However, the Office has not established a basis for "concluding that it would have been obvious to one of ordinary skill in the art to bridge the gap" between that which is disclosed in Tazuke and the noted features of claims 90-93. See id. For example, it is unclear how a skilled artisan would have arrived at using Tazuke's switch 504, which is between the output pads 501, as a fourth

switch configured to control a electrical connection between a current source and a precharge circuit, as recited in each of claims 90-93.

For at least these reasons, the rejections of dependent claims 90-93 should be reversed.

Conclusion

Based on all of these reasons, appellant requests that the Board reverse the rejections of claims 1, 7, 18, 28, 59, 64, 66, 71-82, 84-87, and 90-93 under 35 U.S.C. § 103.

The brief fee of $540 and the $130 fee for a one-month extension of time are being paid concurrently with the Electronic Filing System (EFS). No other fees are believed due. Nonetheless, please apply all charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: August 11, 2010

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Appendix of Claims

1. (Previously Presented) A semiconductor device comprising:

a driven circuit comprising a first transistor;

a signal line electrically connected to the first transistor through a node;

a precharge circuit electrically connected to the signal line and comprising a second transistor; and

a current source circuit electrically connected to the first transistor and the second transistor,

wherein a gate electrode of the first transistor is connected to a drain electrode of the first transistor through a first switch,

wherein a gate electrode of the second transistor is electrically connected to a drain electrode of the second transistor,

wherein a gate width of the second transistor is larger than a gate width of the first transistor, and

wherein the precharge circuit is configured to perform a precharge of the driven circuit prior to supplying a signal current to the driven circuit.

7. (Previously Presented) The semiconductor device according to claim 1, further comprising an impedance transformation amplifier.

18. (Previously Presented) A semiconductor device comprising:

a driven circuit comprising a first transistor;

a precharge circuit comprising a second transistor;

a first switch for controlling an electrical connection between the driven circuit and the precharge circuit; and

a second switch for controlling an electrical connection between the driven circuit and a current source circuit,

wherein a gate electrode of the first transistor is connected to a drain electrode of the first transistor through a third switch,

wherein a gate electrode of the second transistor is electrically connected to a drain electrode of the second transistor, and

wherein a gate width of the second transistor is larger than a gate width of the first transistor.

28. (Previously Presented) The semiconductor device according to claim 18 , wherein a gate and a drain of the second transistor are connected to each other.

59. (Previously Presented) The semiconductor device according to claim 18, further comprising an amplifier circuit configured to amplify a signal current outputted from the precharge circuit.

64. (Previously Presented) The semiconductor device according to claim 7, wherein the impedance transformation amplifier is a source follower circuit.

66. (Previously Presented) The semiconductor device according to claim 59, wherein the amplifier circuit is a source follower circuit.

71. (Previously Presented) The semiconductor device according to claim 1, wherein the gate electrode of the second transistor is connected to the drain electrode of the second transistor.

72. (Previously Presented) The semiconductor device according to claim 1, wherein the precharge is performed by supplying a precharge voltage to the node.

73. (Previously Presented) The semiconductor device according to claim 1, wherein the precharge circuit is included in a current drive circuit.

74. (Previously Presented) The semiconductor device according to claim 18, wherein the precharge circuit is included in a current drive circuit.

76. (Previously Presented) A semiconductor device comprising:

a driven circuit comprising a first transistor;

a signal line electrically connected to the first transistor through a node;

a precharge circuit electrically connected to the signal line and comprising a second transistor; and

a current source circuit electrically connected to the first transistor and the second transistor,

wherein a gate electrode of the first transistor is connected to a drain electrode of the first transistor through a first switch,

wherein a gate electrode of the second transistor is electrically connected to a drain electrode of the second transistor,

wherein a gate length of the second transistor is smaller than a gate length of the first transistor, and

wherein the precharge circuit is configured to perform a precharge of the driven circuit prior to supplying a signal current to the driven circuit.

77. (Previously Presented) The semiconductor device according to claim 76, further comprising an impedance transformation amplifier.

78. (Previously Presented) The semiconductor device according to claim 76, wherein the gate electrode of the second transistor is connected to the drain electrode of the second transistor.

79. (Previously Presented) The semiconductor device according to claim 77, wherein the impedance transformation amplifier is a source follower circuit.

80. (Previously Presented) The semiconductor device according to claim 76, wherein the precharge is performed by supplying a precharge voltage to the node.

81. (Previously Presented) The semiconductor device according to claim 76, wherein the precharge circuit is included in a current drive circuit.

82. (Previously Presented) A semiconductor device comprising:

a driven circuit comprising a first transistor;

a precharge circuit comprising a second transistor;

a first switch for controlling an electrical connection between the driven circuit and the precharge circuit; and

a second switch for controlling an electrical connection between the driven circuit and a current source circuit,

wherein a gate electrode of the first transistor is connected to a drain electrode of the first transistor through a third switch,

wherein a gate electrode of the second transistor is electrically connected to a drain electrode of the second transistor, and

wherein a gate length of the second transistor is smaller than a gate length of the first transistor.

84. (Previously Presented) The semiconductor device according to claim 82, further comprising an amplifier circuit configured to amplify a signal current outputted from the precharge circuit.

85. (Previously Presented) The semiconductor device according to claim 82, wherein the gate electrode and the drain electrode of the second transistor are connected to each other.

86. (Previously Presented) The semiconductor device according to claim 84, wherein the amplifier circuit is a source follower circuit.

87. (Previously Presented) The semiconductor device according to claim 82, wherein the precharge circuit is included in a current drive circuit.

88. (Previously Presented) The semiconductor device according to claim 18,

wherein a first terminal of the first switch is electrically connected to the precharge circuit, and

wherein a second terminal of the first switch is electrically connected to the second switch.

89. (Previously Presented) The semiconductor device according to claim 82,

wherein a first terminal of the first switch is electrically connected to the precharge circuit, and

wherein a second terminal of the first switch is electrically connected to the second switch.

90. (Previously Presented) The semiconductor device according to claim 1, further comprising:

a second switch configured to control an electrical connection between the signal line and the precharge circuit;

a third switch configured to control an electrical connection between the signal line and the current source circuit; and

a fourth switch configured to control an electrical connection between the current source circuit and the precharge circuit.

91. (Previously Presented) The semiconductor device according to claim 18, further comprising a fourth switch configured to control an electrical connection between the current source circuit and the precharge circuit.

92. (Previously Presented) The semiconductor device according to claim 76, further comprising:

a second switch configured to control an electrical connection between the signal line and the precharge circuit;

a third switch configured to control an electrical connection between the signal line and the current source circuit; and

a fourth switch configured to control an electrical connection between the current source circuit and the precharge circuit.

93. (Previously Presented) The semiconductor device according to claim 82, further comprising a fourth switch configured to control an electrical connection between the current source circuit and the precharge circuit.

Evidence Appendix

None

Related Proceedings Appendix

None